

# Magnitude 7 Metals

## Tester DQ Assessment

Secondary emissions are tested by Method 14. Since ERT can only calculate emissions from the sampling duct but the total emission are emissions from the roof manifold, a correction factor must be calculated to account for the different flow rate and temperature between the manifold and the sampling duct.

The average monthly aluminum production rate (tons/hr) is entered for each run in the Process Data Details. These are Process Run Data runs 1, 2 and 3. A correction factor calculated by dividing Secondary Emission Duct Rate (lb/hr) by Roof-Secondary Emission (lb/ton) for each run. This correction factor is entered the ERT's Process Data Details on the Process run Data tab. The process correction factor for runs 1 to 3 are entered in runs 4 to 6 respectively.

The process correction factors are associated with their respective run numbers in the Run Data Details on the 'Emissions' tab. After selecting the Associated Process Run for a run, the pollutant's emissions will display in lb/tons of Aluminum Produced. This result will also be on Magnitude 7 Metals' Summary Report for ERT, Secondary pollutant emission (lbs/ton).

Method 14 testing includes a % Isokinetic (Manifold to Roof) which requires a correction if that value is greater than 120%. The ERT does not perform this correction so in cases where the correction is required, correction must be applied to the weight of the pollutant. Magnitude 7's Summary Report for ERT includes the % Isokinetic (Manifold to Roof) and in cases where that value is greater than 120%, the correction factor and the corrected pollutant weight in addition to the original pollutant weight.

Magnitude 7 Metals is required to test secondary emissions a minimum of 3 runs semi-annually for PM, POM and TF. Primary emissions require a minimum of 3 runs annually. Our limits are based on the total of primary and secondary emissions for PM, POM and TF. In order to report the total emissions for each pollutant, the following reports are attached in the Full Test Report in ERT.

1. Potline Roof and Stack Total Results report (secondary and primary)
2. Potline Stack Results (primary)
3. Summary Report for ERT (Includes the % Isokinetic (Manifold to Roof), correction factors, concentrations, secondary emissions, primary emissions and total primary and secondary pollutant emissions.
4. Method 14 Sample Results (First page for each run. All the run data sheets are included in the Lab Data attachments).